2 Introduction

PURPOSE AND NEED

Wildland fire has long been recognized as one of the most significant natural process operating within and shaping Sierra Nevada ecosystems. Virtually all vegetation communities show evidence of fire dependence or tolerance. Many forest types in the parks have short to moderate natural fire return intervals (6- 17 years) as evidenced by extensive research. At the same time wildland fire has the potential to threaten human lives and property. Consequently there is a need to manage wildland fire so that threats to humans and property are reduced, while at the same time restoring and/or maintaining its function as a natural process. Due to its powerful nature, wildland fire is the only natural process whose management – by NPS policy – is subjected to environmental analysis.

NPS policy directs that every park having vegetation capable of burning must have a fire management plan, and that the fire management plan must be accompanied by an environmental assessment to document the environmental consequences of proposed actions *(NPS Director's Order 18)*. The parks are currently operating under a fire management plan and environmental assessment written in 1989. Once approved, the new plan and environmental assessment will supercede and replace the 1989 plan. Once implemented a new plan will remain in force subject to minor annual and extensive 5- year review until superceded by a subsequent plan.

The fire management program in the parks does not stand alone, but implements direction provided in higher level policy and planning documents such as the *Master Plan* (1971), *Natural and Cultural Resources Management Plan* (1999), *NPS Management Policies* (2001), the National Fire Plan (based on *Managing the Impact of Wildfires on Communities and the Environment, A Report to the President in Response to the Wildfires of 2000*), and the 10- Year Comprehensive Strategy (*A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment*). As these higher level policy and planning documents are revised over time (such as the current effort to draft a new General Management Plan for the parks), the fire management plan will be reviewed for consistency. If new directions are indicated by these higher level plans or policies, the Fire and Fuels Management Plan would be amended to conform to that direction. The fire program must also conform to laws such as the NPS Organic Act, park enabling legislation, Clean Air Act, Clean Water Act, Wilderness Act, and the National Historic Preservation Act. This environmental assessment will screen each proposed alternative for compliance with these policies, plans, and laws.

Responding to direction provided by the documents mentioned above, the parks' fire and fuels management program has three primary goals:

1. **Protect and restore the parks' ecological, cultural, and social values.**
   Resource values include: vegetation, water, wildlife, natural processes, and air resources, along with prehistoric and historic cultural sites, historic structures, and contemporary

structures, both government- owned and private. Social values include protecting park employees, visitors and neighboring communities, and providing for recreational opportunities including wilderness experiences.

2. **Reduce fire hazards in park ecosystems.**
   Fire hazard is defined as those attributes that affect the ability to control fires, or contribute to extreme fire behavior. Only one attribute of fire hazard, *fuel conditions* (amount, arrangement, and continuity) can be effectively altered by management actions and are therefore the focus of most fuel hazard reduction activities.

   Certain other elements that contribute to hazardous fire conditions, such as steep slopes and the amount of solar radiation heating fuels and drying vegetation, cannot be effectively changed by management actions.

3. **Reduce risk of unwanted wildland fire.**
   Risk is defined as the probability of new fire starts, whether by human or natural ignition (lightning). Since lightning ignition risk is outside the realm of management control, the focus of risk management in the fire program is to reduce the probability of unwanted human ignitions through a program of education, detection, and pro- active fuels management.

INTERDISCIPLINARY PLANNING TEAM

An 8- person interdisciplinary planning team that shared responsibility for scoping, research, and writing produced this environmental assessment. The team was compromised of staff specialists in the following disciplines: fire operations, fire fuels, fire behavior, fire ecology, smoke modeling and management, fire history, research, cultural resource management, and public information and education. Other subject matter experts contributed technical expertise for specific sections. A list of planning team members and other consultants is included in Chapter 7.

DECISIONS TO BE MADE

The parks' superintendent will choose among the alternatives presented to guide long- term fire and fuels management activities in the parks. The chosen alternative then becomes institutionalized in the parks' *Fire and Fuels Management Plan*.

ISSUES CONSIDERED

An "issue" is a concern that must be considered when designing and evaluating alternatives in an environmental assessment. Some issues come from requirements found in policy and law. For example, the parks must consider wilderness, firefighter/public safety, plants and animals inclusive of special status species and their habitats, water, soil erosion, wetlands, wild and

scenic rivers, air quality, and cultural resources. Additional issues to be analyzed are identified through public and internal scoping meetings and input.

Employees had an opportunity to identify issues of concern during two scoping sessions in the parks. Other agencies and federal partners were also consulted through targeted scoping meetings and information requests. The U.S. Fish and Wildlife Service was contacted to obtain lists of special status species to be considered in the analysis. Local tribal groups were given the chance to outline their issues of concern through scoping meetings in conjunction with the parks General Management planning process.

Input was sought from the general public by publishing a Scoping Notice in the Federal Register. Press releases to regional media outlets were also used to notify the public of the fire planning effort and to encourage submission of ideas or concerns. Finally, the public was invited to participate in a series of scoping sessions that were offered in five cities throughout California.

Since fire management actions have the potential to differentially affect local communities, a mail- in survey was conducted in the greater Three Rivers area in 1998 to better define the issues and concerns of local residents. Through that effort, the park gained valuable insight into the overall perception and understanding of the fire management program. These insights, such as the community's desire for more direct and current public information on fire activity, have been incorporated into the current fire management planning effort and proposed action.

All issues identified during scoping were documented, and are contained in Appendix C. Some issues appeared to be of widespread interest and formed the focus of the analysis contained in this document. Other issues with limited interest or applicability were raised and considered but not subjected to extended analysis.

Significant issues emphasized in the public scoping process and analyzed along with other issues in this environmental assessment include:

1) air quality and public health
2) managing the risk of catastrophic fire events
3) firefighter and public safety
4) the financial cost/benefit of different alternatives
5) impacts on local economies.